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09/771,773	01/29/2001	Kenneth F. Lanzillo JR.	20593/1	8308

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EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/771,773

Applicant(s)

LANZILLO ET AL.

Examiner

Stephen M Gravini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable

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subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete, and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). Together, the "technological arts" and "useful, concrete, and tangible result" judicial review standard, result in a comprehensive examination standard wherein the "technological arts" is one element and the "useful, concrete, and tangible result" is another complementary element.

This comprehensive examination standard was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an

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improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in

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*State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. The Board of Patent Appeals and Interferences (BPAI) have recently acknowledged this dichotomy in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BPAI 2001).

Claims 11-17 are rejected under 35 U.S.C. 101 because the independently claimed invention does not recite a useful, concrete, and tangible result under *In re Alappat*, 31 USPQ2d 1545 (Fed. Cir. 1994) and *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596 (Fed Cir. 1998) such that the claimed invention is within the technological arts under *In re Waldbaum* 173 USPQ 430 (CCPA 1972) wherein the phrase "technological arts" is synonymous with "useful arts" as it appears in Article I, Section 8 of the United States Constitution. In this claim, it is considered that a concrete and tangible result within the technological arts is not recited. Specifically, the recitation of obtaining, selecting, sending, providing, storing, querying, analyzing, and receiving is considered not to produce a concrete result because those steps are not synonymous with useful arts such that the invention is within the technological arts under the *Waldbaum* decision. Furthermore, under *In re Wamerdam*, 33 F.3d 1354; 31 USPQ2d 1754 (Fed. Cir. 1994), the obtaining, selecting, sending, providing, storing, querying, analyzing, and receiving recitations are considered intangible because those steps are simply an abstract construct, such as a disembodied data structure and a method of making it, wherein those recitations involve more than a manipulation of an abstract idea and therefore is non-statutory under 35 USC 101. The independently claimed communication network is considered not a

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useful, concrete, and tangible result within the technological arts because it can be a communication network of people. Because the independently claimed invention does not recite a useful, concrete, and tangible result, such that it is considered not within technological arts so that it uses technology in a non-trivial matter. Finally under *Ex parte* Bowman, 61 USPQ2d 1665 (Bd. Pat. App. & Inter. 2001) (unpublished but cited for analysis rather than precedent), in which an invention disclosed and claimed directed to a human merely making mental computations and manually plotting results on a paper chart is nothing more than an abstract idea which is not tied to any technological art and is not a useful art as contemplated by the United States Constitution. In this independently claimed invention, the steps of obtaining, selecting, sending, providing, storing, querying, analyzing, and receiving are considered nothing more than an abstract idea since it is not tied to any technological art. However in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. That claim is considered to contain an indefinite recitation, specifically said order processing agent, because that recitation lacks a positive antecedent basis from it claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaw et al. (WO 97/40514). Shaw is considered to disclose a system comprising:

a database including demographic information for a plurality of users (page 9 lines 8-18);

an order processing component in communication with said database, [an] order processing agent upon receiving a demographic query, determines a set of users matching said demographic query from said database (page 9 lines 19-24);

an email service provider component in communication with said order processing component, to receive information regarding said set of users matching said demographic query, to sent a targeted advertisement over said communication network to each user in said set of users (page 9 lines 25-30);

an accounting component, in communication with said communication network, to receive information regarding users' receipt of said targeted advertisement (page 11 lines 6-14 and lines 27-36). Shaw is considered to also disclose an order placement interface (page 11 lines 15-26) accepting a demographic query and target advertisements with accounting (page 12 lines 25-27), matching data with demographic query (page 12 lines 33-35), determining demographic matches (page 13 lines 8-24),



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users' receipt of targeted advertisement from a message which requests further information over a communication network (page 13 line 22-29), update users' demographic information based on response to a new demographic category (page 19 lines 16-26), an order fulfillment agent (page 19 lines 31-36 and page 20 lines 3-9) or a plurality thereof (page 19 lines 11-15), and email service provider queue component (page 20 lines 10-33).

Claims 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shane et al. (WO 97/40514). Shane is considered to disclose a system comprising:

- obtaining demographic information for a plurality of users (column 3 lines 64-67);
- selecting a set of users who match a demographic query comprising a combination of demographic criteria, said selection based on said demographic information (column 4 lines 1-5);

- sending each user in said set of users said targeted advertisement over a communication network (column 4 lines 6-19); and

- providing each user with a communication channel to allow each user to provide additional demographic information (column 4 lines 33-49). Shane is considered to also disclose storing added demographic categories (column 4 line 51), querying and storing additional demographic information (column 4 line 55), matching data with demographic database information (column 6 line 36), randomly selecting and updating demographic information (column 6 line 41), providing interactive information regarding matched

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demographic memory data (column 7 line 11), and receiving receipt information (column 7 line 34).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goldhaber et al (US 5,855,008) and non-patent literature reference U, cited in this action, are considered to disclose network targeted advertisement means and methods.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steve Gravini whose telephone number is (703) 308-7570 and electronic transmission / e-mail address is either [steve.gravini@uspto.gov](mailto:steve.gravini@uspto.gov) or [stephen.gravini@uspto.gov](mailto:stephen.gravini@uspto.gov). Examiner can normally be contacted Monday through Friday from 6:00 a.m. to 3:30 p.m. **If applicants choose to send information by e-mail, please be aware that confidentiality of the electronically transmitted message cannot be assured.** Please see MPEP 502.02. Information may be sent to the Office by facsimile transmission. The Official Fax Numbers for TC-3600 are:

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**STEPHEN GRAVINI**  
**PRIMARY EXAMINER**

smg  
April 1, 2004